

COMPOSITIONS AND METHODS FOR WATER SHUT-OFF IN SUBTERRANEAN WELLS

Abstract of the Disclosure

A fluid system and method to control downhole water problems in oilfield applications are provided. The system includes a sodium silicate solution and a hardener that is added just prior to pumping downhole in a single stage treatment. The hardener may be one or more esters such as dimethyl succinate, dimethyl glutarate, and/or dimethyl adipate. Permanent lost circulation control may be provided by the consequent silica gel formed. Once the treatment is placed, a specified amount of time can be adjusted to meet the needs of the well parameters.